WHAT IS CLAIMED IS:

1. A disk drive comprising:

a magnetic head having a write head for writing data on a data recording medium by a perpendicular magnetic recording method and a read head for reading data from the data recording medium; and

a disk recording medium provided with a plurality of tracks as data regions for storing data written by the write head and a non-recording region provided between tracks kept in an AC magnetized state or a random magnetized state.

2. A disk drive according to claim 1, wherein the disk recording medium is a double-layered recording medium having a recording magnetic layer for storing data and a soft magnetic layer interposed between the recording magnetic layer and a substrate.

3. A disk drive according to claim 1, wherein the non-recording region of the disk recording medium is kept in a state where an AC magnetized pattern is recorded at a frequency equal to or higher than a maximum frequency of a signal magnetic field recorded in the tracks.

4. A disk drive according to claim 1, wherein the non-recording region of the disk recording medium is kept in an AC demagnetized state.

5. A disk drive according to claim 1, wherein the read head has a GMR (giant magnetoresistive)

element and reads data recorded by the perpendicular magnetic recording method while it is close to a surface of the disk recording medium.

6. A process for manufacturing a disk drive of a perpendicular magnetic recording type, comprising:

a recording step for recording an AC magnetized pattern at a high frequency or a random magnetized pattern on an overall surface of the disk recording medium; and

a track formatting step for forming a plurality of tracks on the overall surface of the disk recording medium with an area between the tracks left as a non-recording region.

7. A process according to claim 6, further comprising a servo write step for recording a servo signal in a predetermined servo area of the overall surface of the disk recording medium, wherein the recording step for recording an AC magnetized pattern at a high frequency or a random magnetized pattern is performed with respect to the overall surface of the disk recording medium except for the predetermined servo area.

8. A process for manufacturing a disk recording medium for use in a magnetic disk drive of a perpendicular magnetic recording type, comprising:

a step of AC demagnetizing an overall surface of the disk recording medium; and

a track formatting step for forming a plurality of tracks on the overall surface of the disk recording medium with an area between the tracks left as a non-recording region.